

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Canceled)
2. (Currently Amended) The method as recited in claim [[1]] 28, wherein said backup service includes a snapshot service.
3. (Canceled)
4. (Currently Amended) The method as recited in claim [[3]] 1, wherein said backup service includes an execution of the freezing of applications in the order reflected by the determined application freeze order.
5. (Currently Amended) The method as recited in claim [[1]] 28, further comprising the act of loading said application dependency application programming interface (API) into said computer system.
6. (Currently Amended) The method as recited in claim [[1]] 28, further comprising the act of said backup service requesting a set of application dependency information from a common software agent for use in connection with [[the]] a restore operation.
7. (Currently Amended) The method as recited in claim 6, wherein said set of application dependency information is [[the]] a minimum set of information from said storage component for successfully completing the restore operation.
8. (Previously Presented) The method as recited in claim 6, further comprising the act of said agent issuing a request to at least one registered application for information from said set of application dependency information requested by the service.
9. (Currently Amended) The method as recited in claim [[1]] 28, further comprising the act of at least one registered application communicating information to said agent in response to a request by said agent, said information relating to said at least one application's state dependency information.

10. (Currently Amended) The method as recited in claim ~~[[1]]~~ 28, further comprising the act of unregistering an application.
11. (Currently Amended) The method as recited in claim ~~[[1]]~~ 28, wherein said API uses a communication format comprising XML.
12. (Currently Amended) The method as recited in claim ~~[[1]]~~ 28, wherein said agent stores said ~~at least one application's~~ applications' state dependency information in a tabular format reflective of hierarchical application dependencies in said storage component.
13. (Currently Amended) The computer-readable medium having computer-executable instructions for instructing a client computer to perform the acts of a method recited in claim ~~[[1]]~~ 28.
- 14-16. (Canceled)
17. (Currently Amended) The API as recited in claim ~~[[16]]~~ 29, wherein the service to which said agent delivers said information is a backup service.
18. (Currently Amended) The API as recited in claim ~~[[16]]~~ 29, wherein said service includes a snapshot service.
19. (Canceled)
20. (Currently Amended) The API as recited in claim ~~[[16]]~~ 29, wherein said agent stores said application dependency information in a tabular format reflective of hierarchical application dependencies in a storage component.
- 21-22. (Canceled)
23. (Currently Amended) The computer system as recited in claim ~~[[22]]~~ 30, wherein the service to which said agent delivers said dependency information is a backup service.
24. (Currently Amended) The computer system as recited in claim ~~[[22]]~~ 30, wherein said service includes a snapshot service.

25. (Canceled)

26. (Currently Amended) The computer system as recited in claim [[22]] 30, wherein said agent stores said at least one application's state dependency information in a tabular format reflective of hierarchical application dependencies in a storage component.

27. (Currently Amended) The method as recited in claim [[22]] 30, wherein said ~~set of application~~ dependency information is the minimum set of information from said storage component for successfully completing the service.

28. (New) A method for utilizing applications' state dependency information to efficiently perform a backup service operation in a computer system, comprising the acts of:

- registering applications loaded in said computer system with an application dependency application programming interface (API) for communication of application state dependency information among applications, a common software agent, a storage component utilized by said agent, and a backup service;
- storing in said storage component said applications' state dependency information;
- communicating by said agent, said applications' state dependency information from said storage component to said backup service;
- maintaining by said agent, hierarchical application dependencies of said registered applications for backup operation; and
- retroactively recovering by said agent said computer system to a pre-crash state after selectively analyzing said state dependency information and determining an application freeze order.

29. (New) An application programming interface (API) embodied in a computer readable storage media having computer executable instructions for use in a computer system, said instructions comprising:

- instructions to register applications loaded in said computer system with said API for communication of application state dependency information among applications, a common software agent, a storage component utilized by said agent, and a service;

instructions to store said application state dependency information in said storage component;

instructions to communicate by said agent said application state dependency information from said storage component to said service;

instructions to maintain hierarchical application dependencies of the registered applications for service operations; and

instructions to retroactively recover said computer system to a pre-cash state after selectively analyzing said state dependency information and determining an application freeze order.

30. (New) A computer system, comprising:

a plurality of applications loaded and registered in said system, wherein at least one of said applications has at least one external state dependency with other said applications associated therewith;

a storage component for storing application state dependency information, wherein said dependency information is configured to include information about said at least one external state dependency;

an agent that functions according to communication protocols of an application programming interface (API) in said system for processing said at least one application's state dependency information, said application's state dependency information includes information about dependencies among said applications, and said API is configured to communicate said state dependency information among said applications, said agent, said storage component utilized by said agent, and a backup service;

said service that makes requests to said agent for said application's state dependency information, said agent collects, stores and packages said application's state dependency information in response to a request by said service, and delivers said application's state dependency information to said service for further processing by said service;

said agent maintains hierarchical application dependencies of said registered applications for a backup operation, and retroactively recovers said computer system to a pre-cash state after selectively analyzing said state dependency information and determining an application freeze order.

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31. (New) The method as recited in claim 28, further comprising generating said state dependency information recursively.

32. (New) The API as recited in claim 29, further comprising instructions to generate said state dependency information recursively.

33. (New) The computer system as recited in claim 30, wherein said agent generates said state dependency information.